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United Nations Secretary General (UNSG) submission request on Net Zero

About us:

This submission is from the Quaker United Nations Office in Geneva (QUNO), under the Friends World Committee for Consultation (FWCC). We are an ECOSOC accredited civil society organization which has supported peace and justice efforts at the United Nations since the 1950s. Earlier, in 1947, FWCC co-received the Nobel Peace Prize.

Our Human Impacts of Climate Change programme began in 2013. We are active and accredited observers at the UN Framework Convention on Climate Change the Intergovernmental Panel on Climate Change (IPCC) and the Human Rights Council.

Our submission to the UNSG consultation is integrates the latest IPCC findings for the 6th Assessment Report. We include footnotes for quick reference.

Net Zero:

The term 'net zero' was not assumed language in early drafts of the Paris Agreement. It was debated and eventually included in the final draft. The 'net' of 'Net Zero' at best is to recognise areas with '**hard to abate'** emissions, as defined for 'carbon dioxide removal (CDR). However, 'Net Zero' is increasingly applied for actions which enable continued anthropogenic greenhouse gas (GHG) emission drivers, while counting emission sinks elsewhere. As a result, 'net zero' is increasing used to avoid, delay or excuse efforts for real greenhouse (GHG) emissions reductions. To do so places the future of humanity in danger, as outlined in the IPCC. Specifically:

- The IPCC Special Report on Global Warming of 1.5C outlines loss of life, livelihoods, food security and ecosystems on which human life depends – between event a 1.5C and 2C temperature [1].
- The IPCC has identified **rapid** reduction of the root causes driving increased global surface temperature, in order to maintain a chance at a safer temperature rise limit. The IPCC offers the P1 scenario in as the most rapid and genuine emission reduction approach for a chance for a 1.5C temperature rise limit in its Special Report for Global Warming of 1.5C, specifically:
    - *P1: "A scenario in which social, business and technological innovations result in lower energy demand up to 2050 while living standards rise, especially in the global South. A downsized energy system enables rapid decarbonization of energy supply. Afforestation is the only CDR option considered; neither fossil fuels with Carbon Capture Storage (CCS) nor Bio-Energy with CCS are used."* [2]

[1] https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM_version_report_LR.pdf
[2] https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM_version_report_LR.pdf p.14

- The main anthropogenic emission drivers include - fossil fuels, intensive agriculture, unsustainable economic systems/consumption, and deforestation – are all highly profitable economic activities. An honest analysis of any 'net zero' effort would need to examine the role of power and money interests in choices made, since all can be transformed today with effective policy and existing technology. Are rapid reductions of real emissions being avoided at the cost to a "*livable and sustainable future*[3]" (IPCC 6th Assessment Report: Impacts, Adaptation and Vulnerability 2022) for humanity and nature on which our lives depend?

'Net zero' approaches of serious concern:

- Currently, wealthy, fossil-fuel extraction dependent countries are pressing for CCS and BECCS and other geo and climate engineering investment over rapid reduction of fossil fuel extraction, while failing to sufficiently invest in the rapid increase of renewable energies required for a healthier and more effective transformation.

- Renewable energy (RE) options, for example, are cheaper, ready at scale, and have potential for greater decentralized ownership to empower the poorest with safe, affordable and clean energy. However, investment in RE continues to be dwarfed by investment in technical and geo-engineering to maintain fossil fuel infrastructure, often in the name of 'net zero'.

- Failure to pursue IPCC healthiest mitigation approaches of rapid reductions in fossil fuel extraction and burning place humanity at greater risk of temperature 'overshoot'. In 'overshoot', people and ecosystems suffer and die long before an 'overshoot' temperatures return to a 'safer limit'.

- The IPCC findings in the recent 6th Assessment Report (AR6) Summary for Policy Makers (SPM) Working Group III Mitigation, states that rapid transformation of climate drivers can therefore reduce reliance on risky CDR in the longer term. The IPCC report states:

    a. *Modelled global pathways that limit warming to 1.5°C (>50%) with no or limited overshoot* ***involve more rapid and deeper near-term GHG emissions reductions through to 2030, and are projected to have less net negative CO2 emissions and less carbon dioxide removal (CDR) in the longer term, than pathways that return warming to 1.5°C*** *(>50%) after a high overshoot (C2 category).*[4]

- The AR6 SPM WGIII also highlights CDR, often proposed in 'net zero' climate actions, risks to human rights abuses, specifically:

    a. *CDR methods such as soil carbon sequestration and biochar can improve soil quality and food production capacity. Ecosystem restoration and reforestation sequester carbon in plants and soil, and can enhance biodiversity and provide additional biomass,* ***but can displace food production and livelihoods, which calls for integrated approaches to land use planning, to meet multiple objectives including food security. However, due to limited application of some of the options today, there are some uncertainties about potential benefits (high confidence).***[5]

- This continues with a warning on geo-engineering related to ocean fertilization, which funders could misappropriately describe as a 'net zero' approach, threatening the health of

[3] https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf p.33
[4] https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_SummaryForPolicymakers.pdf D.1.6, p.53
[5] https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_SummaryForPolicymakers.pdf D.1.6, p.53

our oceans, marine life and in turn food security to the several billion human beings dependent on fish for nutrition.

a. *In contrast, afforestation or production of biomass crops for BECCS or biochar, when poorly implemented, can have adverse socio-economic and environmental impacts, including on biodiversity, food and water security, local livelihoods and on the rights of Indigenous Peoples, especially if implemented at large scales and where land tenure is insecure (high confidence). Ocean fertilisation, if implemented, could lead to nutrient redistribution, restructuring of ecosystems, enhanced oxygen consumption and acidification in deeper waters (medium confidence). {7.4, 7.6, 12.3, 12.5).*[6]

- 'Net-Zero' approaches avoid viable and rapid reduction of emission drivers, place humanity at greater risk of dangerous temperature rise and richer countries turning to solar radiation management (SRM) and related enhanced weathering experiments and deployment that pose 'novel' risks. The IPCC Special Report on Global Warming of 1.5C stated:
  a. *Solar radiation modification (SRM) measures are not included in any of the available assessed pathways. Although some SRM measures may be theoretically effective in reducing an overshoot, they face large uncertainties and knowledge gaps SPM Summary for Policymakers 13 as well as substantial risks and institutional and social constraints to deployment related to governance, ethics, and impacts on sustainable development. They also do not mitigate ocean acidification. (medium confidence) {4.3.8, Cross-Chapter Box 10 in Chapter 4}.*[7]

- And again, in the ARG WGII SPM:
  i. *Large uncertainties and knowledge gaps are associated with the potential of solar radiation modification approaches to reduce climate change risks.* ***Solar radiation modification would not stop atmospheric CO2 concentrations from increasing or reduce resulting ocean acidification under continued anthropogenic emissions*** *(high confidence).*[8]

- The IPCC states that Carbon Dioxide Removal (CDR) is to counterbalance 'hard-to-abate' residual emissions. 'Net zero' climate actions are dangerous to humanity if they chose CDR over effective and available transformation of those human activities driving GHG emissions. CDR should be last measure – sought only after governments have first invested in the most effective, healthy, sustainable, just, and ambitious mitigation approaches. These would include, along the IPCC SR1.5C P1 model quoted previously, rapid reduction of fossil fuels/rapid increase in renewable energies, transformation to sustainable agriculture systems, sustainable and just economic systems (consumption levels and economic reliance on unsustainable growth), reduction of deforestation and implementation of sustainable heating/cooling systems.

- However, extraction wealthy countries are pushing CDR as a 'net zero' approach while maintaining – or even increasing – their extraction of oil, gas and coal. climate action, a potential crime against humanity due to the limited time we have to rapidly reduce emissions and avoid catastrophic rates of global surface temperature rise. Examples include:
  i. United Kingdom – political support for CCS and CCUS, alongside the decision to increase access to extraction of fossil fuels, a tax break incentives for fossil

[6] https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_SummaryForPolicymakers.pdf C.11.2, p.47
[7] https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM_version_report_LR.pdf C.1.4 p. 12
[8] https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf , B.5.5, page 21

fuel companies investing in extraction[9]. In turn, seriously restricting planning permission for onshore wind turbines in England and to solar panel fields despite their compatibility with farming and biodiversity health, and scrapping the planned (2015) widespread support for housing insulation and energy reduction.[10]

- The **International Energy Agency** (IEA) states that we need to reach net-zero by 2050, specifically:

    i. *"Instead of fossil fuels, the energy sector is based largely on renewable energy. Two-thirds of total energy supply in 2050 is from wind, solar, bioenergy, geothermal and hydro energy. Solar becomes the largest source, accounting for one-fifth of energy supplies. Solar PV capacity increases 20-fold between now and 2050, and wind power 11-fold. Net zero means a huge decline in the use of fossil fuels. They fall from almost four-fifths of total energy supply today to slightly over one-fifth by 2050. Fossil fuels that remain in 2050 are used in goods where the carbon is embodied in the product such as plastics, in facilities fitted with CCUS, and in sectors where low-emissions technology options are scarce*."[11]

- 'Net zero' must also be viewed cautiously, if used to justify emissions trading that avoids the needed transitions. These transitions include, for example as the IPCC SR1.5C states:

    i. "Pathways limiting global warming to 1.5°C with no or limited overshoot would require rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems (high confidence). These systems transitions are unprecedented in terms of scale, but not necessarily in terms of speed, and imply deep emissions reductions in all sectors, a wide portfolio of mitigation options and a significant upscaling of investments in those options (medium confidence)."[12]

- The concept of 'net' must not be used to avoid real emission reductions (as opposed to 'trading'), as the stakes are too high. Every year we are closer to tipping points, as global temperature rise above1.5C compared to pre-industrial levels leads to "*marine ice sheet instability in Antarctica and/or irreversible loss of the Greenland ice sheet could result in multi-metre rise in sea level over hundreds to thousands of years. These instabilities could be triggered at around 1.5°C to 2°C of global warming (medium confidence)."*[13]

- 'Net zero' emission schemes that rely on land, such as afforestation, increase risks to human rights abuses and biodiversity, as outlined by the IPCC:

    i. "Risks arise from some responses that are intended to reduce the risks of climate change, including risks from maladaptation and adverse side effects of some emissions reduction and carbon dioxide removal measures (high confidence). Deployment of afforestation of naturally unforested land, or poorly implemented bioenergy, with or without carbon capture and storage, can compound climate-related risks to biodiversity, water and food security, and livelihoods, especially if implemented at large scales, especially in regions

[9] https://www.msn.com/en-gb/money/other/rishi-sunak-offers-tax-incentives-to-fossil-fuel-firms-despite-climate-emergency/ar-AAXLebd

[10] https://www.theguardian.com/environment/2021/mar/27/uk-government-scraps-green-homes-grant-after-six-months

[11] https://iea.blob.core.windows.net/assets/7ebafc81-74ed-412b-9c60-5cc32c8396e4/NetZeroby2050-ARoadmapfortheGlobalEnergySector-SummaryforPolicyMakers_CORR.pdf p.9

[12] https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM_version_report_LR.pdf C.2, p. 15

[13] https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf B.2.2 p7

with insecure land tenure (high confidence). {Box 2.2, 4.1, 4.7, 5.13, Table 5.18, Box 9.3, Box 13.2, CCB NATURAL, CWGB BIOECONOMY}.[14]

And also:

ii. *Documented examples of adverse impacts of land-based measures intended as mitigation, when poorly implemented, include afforestation of grasslands, savannas and peatlands, and risks from bioenergy crops at large scale to water supply, food security and biodiversity (high confidence). {2.4, 2.5, Box 2.2, 3.4, 3.5, Box 3.4, Box 9.3, CCP7.3, CCB NATURAL, CWGB BIOECONOMY}.*[15]

- Land based 'net zero' climate action trade-offs has too often increased abuses of human rights and Indigenous Peoples rights. Land based 'net zero' tend to be planned as 'large-scale', demanding significant amounts of land on which people live, and resulting in profound challenges to people's ability to grow food and source clean water. Access to information, to participate in environmental decision making are 'human rights-based approaches but they are too easily ignored. In many cases, including in democratically elected government countries, people who are affected and pursue a right to information/participation are arrested, and increasing, murdered.
- Protection of these rights (as is the obligation of States) is strengthened when human rights-based approaches are integrated into the climate action, creating more fair, effective and sustainable climate action. Good examples of these are collated across many UN Special Rapporteurs and their regular reports to the Human Rights Council. Human rights-based approaches include public participation in decision making, respect human rights and Indigenous Peoples rights, intergenerational (youth), biodiversity, gender, and just transition. Within this, land based carbon trading under 'net zero' must ensure protection of (already often weak) land tenancy rights of the poorest or marginalized, including marginalization based on ethnicity or race. Without clear international norms and laws, States are more likely to abuse the human rights of these communities. As stated in the Paris Agreement Preamble:

    i. *"Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity, Recognizing the importance of the conservation and enhancement, as appropriate, of sinks and reservoirs of the greenhouse gases referred to in the Convention, Noting the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, recognized by some cultures as Mother Earth, and noting the importance for some of the concept of "climate justice", when taking action to address climate change (Preamble)*[16]

- In addition, 'net zero' efforts by developed countries should prioritize rapid reduction of fossil fuels and other main drivers, specifically: *Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts and are encouraged to move*

[14] https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf B.5.4 p.21

[15] https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf D.4.2. p. 34

[16] https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf

over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances. (Art. 4.4 of the Paris Agreement)

a. *Support shall be provided to developing country Parties for the implementation of this Article, in accordance with Articles 9, 10 and 11, recognizing that enhanced support for developing country Parties will allow for higher ambition in their actions. (Art. 4.5)*[17]

- Finally, the IPCC Special Report on Climate Change and Land (2019) Summary for Policy Makers (SPM SRCCL) gave a stark warning in its final paragraph over the ability of land to go from 'sink' to 'source'. Delayed real reductions in emissions (not trading) leads to higher temperatures which increase forest fires, permafrost melt (releasing more GHG emissions), and eco-system collapse. The once health forests calculated into 'net zero' trading packages are no longer, in turn are a source of GHG emissions through their inability to cope. The specific IPCC SPM conclusion is here:

  a. "D.3.3 *Deferral of GHG emissions reductions from all sectors implies trade-offs including irreversible loss in land ecosystem functions and services required for food, health, habitable settlements and production, leading to increasingly significant economic impacts on many countries in many regions of the world (high confidence). Delaying action as is assumed in high emissions scenarios could result in some irreversible impacts on some ecosystems, which in the longer-term has the potential to lead to substantial additional GHG emissions from ecosystems that would accelerate global warming (medium confidence). {1.3.1, 2.5.3, 2.7, 3.6.2, 4.9, 4.10.1, 5.4.2.4, 6.3, 6.4, 7.2, 7.3, Cross-Chapter Box 9 in Chapter 6, Cross-Chapter Box 10 in Chapter 7}."*[18]

- There is an increasing emphasis in IPCC reports to 'conserve and restore ecosystems' for both land and forests. This is opposed to afforestation and reforestation, which have human rights abuse risks. 'Conserve and restore' reflects awareness of the devastating state forests/land is currently in, and the effectiveness both for climate and biodiversity, in healthy and nature regeneration. This should be prioritized in addition to rapid reduction of GHG emissions at source.

[17] https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf (see Article references after quotes)

[18] https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf p. 41